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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,041	02/13/2002	Indu Bhusan Chatterjee	3030.004USU	7417

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EXAMINER

WALLS, DIONNE A

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 04/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,041

Applicant(s)

CHATTERJEE, INDU BHUSAN

Examiner

Dionne A. Walls

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9, 20-30, 32, 34-39, 43-44, 46-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 9 recites the limitation "charcoal bed" in line 1. There is insufficient antecedent basis for this limitation in the claim.
4. Claims 20-30 recite the limitation "the activated charcoal mixture" in line 1. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 32 recites the limitation "the protein oxidation" and "the mainstream cigarette smoke solution". There is insufficient antecedent basis for this limitation in the claim.
6. Claim 34 recites the limitation "the nicotine delivery" in line 1. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 39 recites the limitation "the mainstream smoke solution" in line 1. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 44 recites the limitation "filter element" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 46 recites the limitation "charcoal filter cigarettes" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 47 recites the limitation "the mainstream smoke solution" in line 1. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 48 recites the limitation "said charcoal filtered cigarettes" and "the lung tissue". There is insufficient antecedent basis for this limitation in the claim.

12. Claim 49 recites the limitation "charcoal filter cigarettes" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 50 recites the limitation "the mainstream smoke solution" in line 1. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 51 recites the limitation "said charcoal filtered cigarettes" and "the lung tissue". There is insufficient antecedent basis for this limitation in the claim.

15. Regarding claim 43, the phrase "and any other smoking devices" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "any other"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

16. Regarding claims 35-38, Applicant recites claims with limitations drawn to nicotine-fortified tobacco; however, the claims are drawn to a filter. Thus, it is not clear whether Applicant intends to claim a smoking device (which would include a filter and tobacco portion), or just a filter. Since the claims are presently drawn to a filter for tobacco smoke, not a smoking device, the Examiner will examine the claims as filter claims, and will not deem the "tobacco" language to be patentably distinguishable limitations which, structurally, further limit the "filter" claims.

Claim Objections

17. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 10 appears to be drawn to charcoal particles with grain size ranging between 25-100 mesh, which has already been recited in claim 1.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 40, 43-45, 49-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Admitted Art.

In the instant specification page 14, lines 8-15, Applicant admits that typical charcoal filter cigarettes have a first conventional cellulose acetate fiber filter, acting as the mouthpiece, the length of which may vary according to convenience, e.g. 10-15 mm; a second conventional cellulose acetated fiber filter, acting as a barrier between a charcoal bed and a tobacco portion of the cigarette to prevent infiltration of charcoal into the tobacco, the length of which may be 2-4 mm; and a charcoal filter bed located between the two conventional cellulose fiber filters, the length of the activated charcoal

bed varying depending on the amount of charcoal used, e.g. 4.5-5.5 mm per 100 mg; or 9-11 mm per 200 mg; or 13-16 mm per 300 mg, etc.

Regarding claim 43-45 and 49-51, the filter of Applicant's Admitted Art would demonstrate these claimed functions/attributes since structurally, the filter of the applied art is similar, if not substantially identical, to that which is claimed. Where the claimed and prior art product/apparatus is identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430,433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

20. Claims 1, 6-7, 10, 31-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Mentzel et al (US. Pat. No. 5,423,336).

Mentzel et al discloses all that is recited in the claims (See col. 3, line 56-col. 4, line 24).

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 1-19, 31-39, 41-42, 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Art in view of Mentzel et al (US. Pat. No. 5,423,336).

In the instant specification page 14, lines 8-15, Applicant admits that typical charcoal filter cigarettes have a first conventional cellulose acetate fiber filter, acting as the mouthpiece, the length of which may vary according to convenience, e.g. 10-15 mm; a second conventional cellulose acetated fiber filter, acting as a barrier between a charcoal bed and a tobacco portion of the cigarette to prevent infiltration of charcoal into the tobacco, the length of which may be 2-4 mm; and a charcoal filter bed located between the two conventional cellulose fiber filters, the length of the activated charcoal bed varying depending on the amount of charcoal used, e.g. 4.5-5.5 mm per 100 mg; or 9-11 mm per 200 mg; or 13-16 mm per 300 mg, etc. While Applicant may not state that the charcoal used in the charcoal bed of the known charcoal filter cigarettes has a grain size ranging between 25-100 mesh, Mentzel discloses a filter cigarette having a charcoal bed filter section sandwiched between cellulose acetated filter sections, the charcoal (activated carbon) particles having a screen mesh width in the range from 177-500 microns (corresponding to approximately 35-80 mesh – which is within the claimed range). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate charcoal particles having this mesh size into the charcoal bed of charcoal filter cigarettes since utilizing charcoal particles of this size, in charcoal filter cigarettes, is known as evidenced by the Mentzel et al reference.

Regarding claim 6, it would have been obvious to one having ordinary skill in the art at the time of the invention to join the three sections using a thin wall tube made of paper since such is conventional in the production of cigarette filters (see Mentzel et al col. 3, lines 65-67).

Regarding claims 11-19, it would have been obvious to one having ordinary skill in the art at the time of the invention, in an effort to achieve optimal adsorption of noxious cigarette smoke constituents, to arrive at the claimed charcoal size and amount, after routine experimentation, since these charcoal grain sizes and amounts are envisioned by the applied prior art.

Regarding claim 31-39 and 46-48, it would follow that the filter of Applicant's Admitted Art modified by Mentzel et al would demonstrate these claimed functions/attributes since structurally, the filter of the applied art is similar, if not substantially identical, to that which is claimed. Where the claimed and prior art product/apparatus is identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430,433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

Allowable Subject Matter

23. Claims 20-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Neukomm (US. Pat. No. 4,201,234)

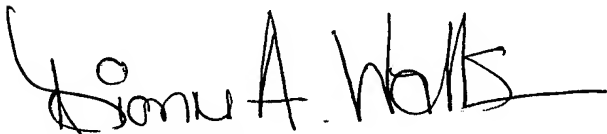
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- Stavridis (US. Pat. No. 6,257,242).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (703) 305-0933. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

A handwritten signature in black ink that reads "Dionne A. Walls". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Dionne A. Walls
March 31, 2003